

BRIDLINGTON UNION.

RURAL
SANITARY AUTHORITY.

REPORT for the Year 1898,

OF

WILLIAM A. WETWAN, M.R.C.S.,

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Medical Officer of Health for the District.*

BRIDLINGTON QUAY :

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REPORT, 1898.

BRIDLINGTON QUAY,

February 10th, 1899.

GENTLEMEN,

I have the honour to present to you my Annual Report on the Health of the Rural Sanitary District of Bridlington.

The Rural District is extensive, having within its boundaries the three Registration Sub-Districts of Rural Bridlington, Hunmanby, and Skipsea. It has an area of over 60,000 acres, or a little more than 100 square miles, and a population by estimation of 8,528. This population is unevenly distributed, varying in density and numbers from 13 at Auburn to 1300 at Hunmanby village. The superficial contour of the ground is on the North hilly and bold, consisting of the spur of the Wolds, which runs Eastwards, to terminate at Flamborough Head, and towards the South shelves gradually into the low-lying undulating country of Holderness. There is a good sub-soil of sand and gravel covered by a thick layer of alluvial deposit, excepting on the higher part of the Wolds where the chalk comes to the surface, as at Flamborough, Speeton, Thwing, and Wold Newton, and on the extreme South, near the sea, where the soil is very thin. With the exception of Flamborough, which has a moiety of the population engaged in fishing, the inhabitants are mostly occupied with agriculture and its subsidiary avocations. The census of 1891 showed a reduction of nearly a thousand in the population by emigration or deaths during the decade 1882-91, but if we may judge by the Registrar's monthly returns of births and deaths, and allowing immigration to balance emigration, the natural increase of population during the early years of the current decennium would give us an estimated population of 8,528 for the year 1898.

TABULAR SYNOPSIS.

Sub-District.	Estimated Population in 1898.	Births in 1898.	Deaths		Death Rates in 1898.		
			At all Ages	Under 1 year	General	Zymotic	Infantile
Rural Bridlington	2798	56	31	7	11·07	2·14	126·7
Hunmanby ...	3889	106	62	14	16·94	0·77	132·07
Skipsea	1841	36	24	7	13·03	1·07	138·8
Rural District	8528	198	117	28	14·07	1·28	131·31

Name of Parish.	Population at Census in		Deaths in 1898.	
	1881	1891	All Causes.	Zymotic.
Auburn	12	13		
Bessingby	80	87	2	
Carnaby	180	200	2	
Boynton	156	128	1	
Easton	23	32	1	
Hilderthorpe	26	41		
Wilsthorpe	13	16		
Sewerby & Marton ...	343	331	3	
Buckton	151	141	2	
Flamborough	1355	1288	15	5
Bempton & Newsome	309	310	5	
Rural Bridlington	2648	2587	31	5
Hunmanby	1351	1309	27	2
Speeton	160	151	4	
Grindale	179	157	1	
Argham	39	40		
Rudston	604	578	5	1
Thwing	439	367	9	2
Wold Newton	310	292	5	1
North Burton	543	425	9	2
Reighton	254	252	4	
Fordon	57	38		
Hunmanby Sub-Dist.	3936	3609	64	8
Burton Agnes	342	321	2	1
Haisthorpe	123	121	1	
Thornholme	110	115		
Gransmoor	84	68		
Lissett	90	105	1	
Ulrome	194	198	1	
Dringhoe, Upton and Brough	157	156	4	1
Skipsea	398	341	6	1
Barmston	198	213	3	3
Fraisthorpe	104	95	1	
Skipsea Sub-District	1800	1733	24	6
Rural District.	8384	7929	119	19

VITAL STATISTICS OF ENGLAND AND WALES FOR 1898.

The birth-rate of England and Wales was 29·4 per 1000, which is lower than that in any other year on record; compared with the average in the ten years 1888-97, the birth-rate in 1898 shows a decrease of 1·1 per 1000. Excepting 1894-96-97, the death-rate last year was the lowest on record, being only 17·6 per 1000, compared with the average in the ten years 1888-97. The death-rate in 1898 shows a decrease of 0·8 per 1000.

The rate of mortality among infants was 161 per 1000 registered births, which was 12 per 1000 above the average. The deaths resulting from the principal Zymotic Diseases were equal to a rate of 2·22 per 1000 living, against 2·21 and 2·17 respectively, in the two preceeding years.

The excessive prevalence of, and mortality from the different forms of Tuberculosis have aroused during the year a wide-spread interest amongst the public generally, and created a feeling of deep concern in the minds of medical men and sanitarians. In a report issued by the British Medical Association it is shown that the annual mortality of the United Kingdom from Tuberculosis at all ages is 2,488 per million living, whilst all the acute specific diseases put together only average 1,606. That the incidence of the disease falls on childhood—the deaths for the first five years of life being 8,795 per million against 541 for the third quinquennium (10—15 years)—the bulk of these early deaths occurring in infants, that is children under one year of age. Experience has further shown that infants and children dying of respiratory and wasting diseases are in a large proportion affected with Tuberculosis, although the patients may not have presented obvious symptoms during life. The mortality from Tuberculosis in early childhood is not decreasing as it is at other ages in the United Kingdom, and the opinion that this great prevalence of the disease in infancy and childhood is due to infection through the alimentary canal by milk from Tuberculous cows appears to be well founded. The following table showing the mean death-rate from *Tabes Mesenterica* (Abdominal Phthisis) in England and Wales amongst infants under one year of age per million is given by Sir Richard Thorne in his second Harben Lecture:—

1851-60 = 3160	1881-85 = 4356
1861-70 = 3800	1886-90 = 4462
1871-80 = 4467	1891-95 = 4046

Many suggestions have of course been made as to treatment and prophylaxis. It is with the latter aspect that we, as a Sanitary Authority, are mostly interested in this Report. Whilst regarding the compulsory notification of all Phthisis and Tuberculous affections as being at present too advanced for public opinion, it is indisputable that the Sanitary Authority should receive very early information of the termination by removal or death of all cases of Pulmonary Tuberculosis, so that adequate means of disinfecting the sickroom and premises may be taken before the place is re-occupied by the presumably healthy; leaflets setting out the hygienic environment of the patient and the precautions to be adopted for the prevention of infection should be freely distributed; a careful record should be made of those houses where there has been a succession of cases, and if fumigation and less drastic means of purification do not succeed in breaking the connection, the whole internal walls and ceilings should be stripped of plaster to the bricks, the floors planed and treated to a powerful fluid Bactericide, and the house left vacant for a time. Especial attention should be given to light and air space in and around new houses; and

old houses and tenements which cannot be brought up to a higher standard than at present rules, should be pulled down. Great attention should be given to the meat and milk businesses, especially the later. Frequent inspections of all dairies, cowsheds, slaughter-houses, &c., are recommended, with a free revision of bye-laws in the light of added experience and their injunctions stringently enforced. Public slaughter-houses are advised because of the increased facility of meat inspection. The minimum air space for cowsheds is recommended to be 800 cubic feet with suitable provision for light, ventilation, and draining. Power to visit dairies and slaughter-houses outside the district, from which milk and meat are sent, should be obtained, and the tuberculin test applied to suspicious cows, or the milk from that dairy be excluded. A Veterinary Officer should be retained to assist the Medical Officer of Health in this part of his work.

There are other recommendations with which I need not weight this paper, neither am I prepared to support them all. In this district my experience is that most of the butcher's meat is good, the slaughter-houses are mostly well managed, although some are badly constructed and placed. Of the cowsheds I cannot speak so well. Many of them are converted buildings, deficient in light, ventilation and space, whilst here and there some are very ramshackle.

The weather of the past year has been fairly propitious; a moderate winter followed by an open spring and early summer. The middle of the year was characterised by some heavy rains, but the autumn and succeeding winter were again mild. The first half of the year saw us with a good deal of sickness of the zymotic class, Measles being prevalent in Skipsea sub-district, and Scarlatina in Hunmanby and Rural Bridlington. The elementary schools were closed for a time at Grindale and Rudstone, and children from infected houses were excluded in Flamborough and other centres. A few cases of Enteric Fever were scattered about the Rural District but there was only a trifling mortality. Very little consideration for the welfare of the patient or possible conveyance of infection, was shown in some instances. I saw a boy shortly after being sent home supposed to be convalescent from Enteric Fever, when he had a temperature of 102 degrees, and another, a girl, was despatched from the house where she had contracted Scarlet Fever to a crowded cottage in a neighbouring village, with desquamation well marked. Fortunately, in neither case did any propagation of the mischief ensue from this carelessness, but it was more by good luck than foresight that it was prevented. I have had the usual difficulty in obtaining means of isolation in such cases, and would again draw your attention to the desirability of providing accommodation in such cases, or joining with some neighbouring Authority to secure joint use of suitable premises.

For the third time I have received notice of the occurrence of Anthrax on the same farm, clearly showing that the means at present adopted for destroying the infected carcase, and cleansing and disinfecting the building are inefficient. The body should be burned where the animal has died together with any litter, and bedding which has been in recent contact with the animal. The bad flooring and the rough porous material of which the walls of stables and cow-sheds are made, appear to be the great obstacles to effectual destruction of the Anthrax bacilli and spores.

MARRIAGES.

There were 37 marriages in the Rural District in 1898, as compared with 51 and 55 in the two immediately preceding years, being equal to 8·6 persons married to each 1000 living, and 6·8 below the mean rate of England and Wales for the last ten years.

BIRTHS AND BIRTH-RATES.

There were 198 births registered in the Rural District in 1898, against 223, 228, and 224 in the three immediately preceding years. The District birth-rate of 23·2 being 6·2 below that of England and Wales for the year. The Sub-District birth-rates were :—Rural Bridlington, 27·23 ; Hunmanby, 27·25 ; and Skipsea, 19·55 per 1000 living.

TABLE OF QUARTERLY TOTALS.

1898.				1897.		
	Males	Females.	Total.	Males.	Females.	Total.
BRIDLINGTON SUB-DISTRICT.						
1st Quarter.....	8	5	13	4	8	12
2nd Quarter.....	7	5	12	8	16	24
3rd Quarter.....	11	12	23	9	13	22
4th Quarter.....	7	1	8	2	7	9
Totals...	33	23	56	23	44	67
HUNMANBY SUB-DISTRICT.						
1st Quarter.....	22	14	36	17	15	32
2nd Quarter.....	13	13	26	13	14	27
3rd Quarter.....	12	11	23	17	17	34
4th Quarter.....	10	11	21	20	11	31
Totals...	57	49	106	67	57	124
SKIPSEA SUB-DISTRICT.						
1st Quarter.....	3	6	9	7	7	14
2nd Quarter.....	2	10	12	—	2	2
3rd Quarter.....	4	8	12	2	7	9
4th Quarter.....	1	2	3	6	1	7
Totals...	10	26	36	15	17	32
Totals for Rural District...	100	98	198	105	118	223

DEATHS AND DEATH-RATES.

There were 120 deaths in 1898, compared with 111, 94, and 97 in the three previous years. The death-rate for the Rural Sanitary District being 14·07 per 1000 persons living, or 3·53 below the rate of mortality in England and Wales. The deaths of children under one year of age were in the proportion of 131·31 deaths to each 1000 registered births, the average proportion in England and Wales for the past year having been 161 per 1000. The Sub-District rates of mortality at all ages were:—Rural Bridlington, 11·07; Hunmanby, 16·94; Skipsea, 13·03, and the proportion of infantile deaths to registered births for the same localities as follows:—126·78, 132·07 and 138·8 respectively.

TABLE OF QUARTERLY TOTALS.

1898.				1897.		
	Males.	Females.	Total.	Males.	Females.	Total.
BRIDLINGTON SUB-DISTRICT.						
1st Quarter.....	3	7	10	5	8	13
2nd Quarter.....	3	8	11	2	3	5
3rd Quarter.....	2	—	2	3	6	9
4th Quarter.....	7	1	8	7	5	12
Totals...	15	16	31	17	22	39
HUNMANBY SUB-DISTRICT.						
1st Quarter.....	8	4	12	8	4	12
2nd Quarter.....	12	9	21	8	6	14
3rd Quarter.....	7	10	17	9	5	14
4th Quarter.....	6	9	15	8	11	19
Totals...	33	32	65	33	26	59
SKIPSEA SUB-DISTRICT.						
1st Quarter.....	5	2	7	4	—	4
2nd Quarter.....	6	2	8	—	1	1
3rd Quarter.....	—	1	1	1	3	4
4th Quarter.....	3	5	8	3	1	4
Totals...	14	10	24	8	5	13
Totals for Rural District...	62	58	120	58	53	111

CAUSES OF DEATH.

This table shows the causes of death classified according to disease, age, locality and quarter of the year, and gives the mortality of the Rural District for the year to which the Report refers. The difference in the totals of this and the preceding table is caused by allocating to the respective localities of deaths taking place outside the district of persons belonging thereto.

CAUSE OF DEATH.	AGE.						Registration Sub-District.			SEX.		Quarter of Year.				Total.
	Under 1 year.	From 1 to 5.	From 5 to 15.	From 15 to 25.	From 25 to 60.	From 60 upwards.	Bridlington.	Hummanby.	Skipsa.	Males.	Females.	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	
	2	..	..	..	..	1	1	1	1	2	1	..	..	1	2	..
	..	..	2	..	..	..	..	1	..	..	2	..	2	..	..	..
Diarrhoea .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhoid .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scarlet Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Influenza .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diabetes .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Gangrene .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cancer .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Leucocythemia .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Disease of Brain & Spinal Cord	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Disease of Heart & Blood Vessels .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bronchitis, Pneumonia, &c.	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Disease of Stomach & Bowels	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Disease of Kidneys .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Marasmus & Congenital Debility	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Premature Birth and Dentition	8	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Senile Decay .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Inquests {	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Natural Causes .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Traumatic Causes .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Totals	26	15	9	5	20	44	32	63	24	61	58	29	39	20	31	119

Disease:—There were 11 deaths attributed to the “principal diseases” of the zymotic class, showing a zymotic mortality rate for the Rural District of 1·28 per 1000 living. Influenza claimed 8 against 1 the year before. There were 3 deaths due to Cancer, as compared with 6 in the previous year, whilst Phthisis and Tuberculosis are responsible for 13, against 6 in 1897. Diseases of the Central Nervous System, and of the Vascular System had a mortality of 16 and 5 respectively in 1898, and of 15 and 12 in 1897. Bronchitis, Pneumonia and Pleurisy took 15 victims, and Disease of the Stomach and Bowels 12 last year, against 12 and 5 in the preceding year. Marasmus and Congenital Debility, Premature Birth and Dentition, and Senile Decay have each slightly smaller totals in 1898 than in the year before; and inquests are 4 less this year than in the previous twelve months.

Age:—There were 41 deaths in the first five years of life; 44 had attained to 60 years and upwards, 34 were in the middle period, against 46, 27 and 38 in the year 1897.

DEATHS FROM CERTAIN DISEASES IN THE YEARS 1891-98.

	1891	1892	1893	1894	1895	1896	1897	1898
Diarrhœa	2	4	5	—	4	—	—	3
Measles	3	2	—	—	5	—	—	—
Enteric Fever	1	2	1	2	—	1	—	2
Scarlet Fever	10	—	1	—	1	—	2	5
Diphtheria	1	—	1	—	—	—	1	—
Influenza	11	3	4	2	1	—	1	8
Childbirth	1	1	—	1	1	3	—	—
Bronchitis, Pneumonia ...	23	14	12	20	8	9	12	15
Tuberculosis	7	5	2	15	6	7	6	13
Cancer	4	3	7	4	7	5	6	3

VACCINATION.

In the six months ended 30th June, 1898, there were 166 births registered in the Bridlington Registration District. Of these 84 were successfully vaccinated, 23 died unvaccinated, 7 were declared insusceptible (the largest number I have known in this neighbourhood), 2 were postponed by Medical Certificate, 1 was removed to a known district, and 2 to places unknown, and certificates of conscientious objection were returned for 2, leaving 45 or 28·37 per centum of total births unaccounted for. It is, of course, much too early to attempt any estimate of the value of the much debated Vaccination Act of last year. No doubt the great amount of attention drawn by Parliament to the subject will have an appreciably beneficial effect, and it is already becoming apparent that the “conscientious objector” is not so “conscientious” nor so very “objective” as he was at first thought to be; but a record should be kept of him and a note made of his whereabouts that he may receive attention in any threatened invasion of infection. It is right that the Act should have a fair trial, and I hope that the various Authorities charged with its administration will carry out their statutory obligations with intelligence and firmness.

so that some of the arrears accumulated by years of laxity may be caught up, although many experienced administrators believe that nothing short of a sharp outbreak of Small Pox will suffice to enlighten the fatuous ignorance and cure the culpable carelessness of those who have during the last ten years systematically evaded their obligations in this respect.

In 1517, Small Pox invaded St. Domingo and destroyed over a million natives; in 1520, the disease appeared in Cuba, and soon spread to Mexico, slaying in its course some 3,500,000 people. It was said by contemporary historians, quoted, I believe, by Prescott, that Mexico was conquered by the Small Pox, not by the Spanish troops under Cortez. In 1707, Ireland lost half its population; and in 1733, Greenland was desolated by the same terrible scourge. In our own times the ravages of Variola in the Fiji group of islands must be in the memory of many. In England during the period antecedent to the introduction of inoculation, one fourteenth of each generation was regularly swept away by Variola, whilst Dr. Crabbe, writing towards the end of last century, says that in his time 2,000 people died annually of the disease in one London district alone, whilst in 1898 the total Small Pox mortality for England and Wales was 254. Inoculation reduced Small Pox mortality to about 1 in 70 of those thus protected, whilst Variola contracted after successful vaccination has a death-rate of one in two hundred.

VACCINATION STATISTICS, 1887-97.

Year.	Births.	Successfully Vaccinated.	Insusceptible.	Died Unvaccinated.	Postponed by Medical Certificate.	Removed to Districts known.	Removed to Districts unknown.	Unaccounted for.	Per cent lost sight of or unaccounted for.
1887	276	216	—	31	6	9	—	14	5·0
1888	299	239	—	29	3	2	4	22	8·3
1889	310	191	—	37	—	2	6	54	17·4
1890	275	214	—	25	1	2	7	26	9·4
1891	324	245	—	36	2	—	—	40	12·3
1892	290	206	—	24	—	1	—	59	20·0
1893	326	202	—	33	—	2	—	89	27·3
1894	309	192	—	32	2	4	10	67	24·9
1895	308	147	—	35	2	—	—	124	40·26
1896	327	212	2	42	1	2	11	57	20·7
1897	344	213	3	33	—	2	1	89	26·7

INFECTIOUS DISEASE (NOTIFICATION) ACT.

I received 140 certificates under this Act during the past year, against 82 and 120 in the two previous years. The larger number were received in the first quarter when Scarlet Fever and Measles were very prevalent all over the country. The Enteric Fever was in Hunmanby and Skipsea Sub-districts and in the final quarter of the year. The extent to which Scarlatina spreads is undoubtedly due to the parents' disregard of precautions, and the utter impossibility of isolation in many two-roomed cottages. With Measles, the infection is spread before the case is

recognised, most of the earliest cases in an epidemic, if at all mild, being got over without the assistance of the doctor. Handbills relating to the methods of disinfection and isolation, copies of which are annexed, have been sent to every case notified. I have also visited many of the houses, where necessary disinfectants have been supplied.

Disease	Rural District	SUB-DISTRICT			1st Quar-ter	2nd Quar-ter	3rd Quar-ter	4th Quar-ter
		Brid-lington	Hun-manby	Skipsea				
Diphtheria	3	—	2	1	2	1	—	—
Enteric Fever.. ...	8	—	4	4	—	—	—	8
Scarlet Fever.....	78	64	14	—	30	26	22	—
Erysipelas	4	4	—	—	2	—	1	1
Measles	47	40	1	6	40	1	6	—
Totals.....	140	108	21	11	74	28	29	9

NOTIFICATION STATISTICS FOR EIGHT YEARS, 1891-98.

Disease			1891	1892	1893	1894	1895	1896	1897	1898
Diphtheria	...	...	14	3	2	—	—	1	3	3
Enteric Fever	...	...	2	14	8	3	16	7	3	8
Typhus Fever	...	...	—	—	—	—	—	—	—	—
Scarlet Fever	...	...	60	4	1	5	19	7	67	78
Puerperal Fever...	...	...	—	—	—	—	1	3	1	—
Erysipelas	...	...	—	—	—	5	1	7	5	4
Measles	...	...	—	—	—	—	24	103	4	47
Small Pox	...	...	—	1	—	—	—	—	—	—

INFECTIOUS DISEASES (ANIMALS) ACT.

I am without any detailed information on the working of this Act during the past year, but I presume its importance, and the responsibilities it casts upon Sanitary Authorities, are fully recognised. Your bye-laws should be revised and brought up to date—your regulations should be freely distributed and strictly enforced. I need add nothing more to my remarks on Tuberculosis at the beginning of this Report, it is rapidly becoming “the question” of the day for sanitarians.

Complaints of the Flamborough sewers not infrequently reach me, and appear to be due to want of flushing on the one hand, and to a faulty scheme which did not provide a proper settling tank and half an acre or so of sandy land to take up the effluent on the other; probably also there is insufficient fall in the last 150 yards. I cannot learn that any further attempt has been made to provide a pure water supply, and nothing has been done to lessen the nuisance and dampness from the Mere, and to turn its expanse into a flushing tank of considerable power.

Several other parts of your District present problems in sanitation and will benefit by a visit from your Sanitary Officials.

I am, Gentlemen,

Your obedient Servant,

WILLIAM A. WETWAN,

Medical Officer of Health

To the Rural District Council and Sanitary Authority, Bridlington.

Handbill No. 1.

DISTRICT OF BRIDLINGTON.

RURAL DISTRICT COUNCIL AND SANITARY AUTHORITY.

SCARLET FEVER OR SCARLATINA.

Scarlet Fever and Scarlatina are one and the same disease. It is a very infectious fever of varying intensity, mostly spreading amongst the young. Mild cases are quite as infectious as the most severe, and will equally beget the severe type. Infective material is given off from the throat and skin—from the throat chiefly during the early period of the disease—from the skin mostly during the later or peeling stage. A patient is infectious from six to eight weeks from the appearance of the rash or initial symptoms. The *particles of skin* shed during desquamation will retain their virulence for *months and years*

The patient should be separated from the rest of the family, and placed in a light and airy, but warm room at the top of the house; all unnecessary furniture and carpets should be removed from the room and staircase; a sheet should be hung outside the bedroom door, quite covering the aperture, and kept constantly wet with some fluid disinfectant. The attendant should *invariably* remove her outer-garment (*of washable print*) before going to other parts of the house, or leaving the patient's room; and should pay very particular attention to her own head as well as the patients, frequently washing both with warm soap and water containing Carbolic Acid.

The 126th Section of the Public Health Act imposes heavy penalties on any person exposing himself—or other infected person—or exposes clothes or things generally which have been exposed to infection, and not properly disinfected.

Handill No. 2.

DISTRICT OF BRIDLINGTON.

PRECAUTIONS IN CONSUMPTION, DIPHTHERIA, AND
TYPHOID. FEVER.

In "Consumption" and Diphtheria, all expectoration should be on to pieces of rag or carbolised tow, which should be burned at once; or into some glazed vessel containing a powerful antiseptic. The atmosphere of the sick room being kept saturated with a volatile disinfectant.

The patient should occupy an airy, *moderately* warm, well ventilated room.

In "Typhoid Fever" as in Cholera—English and Asiatic—the infection is in the bowel discharges, and these should at once be destroyed by fire, or by some powerful bactericide. All linen soiled by these discharges should *at once* be placed in disinfecting solution.

It is most essential in all these complaints that articles of food and drink should be kept out of the reach of any chance of infection—only such as may be required by the patient should be allowed in the sick room.

Handbill No. 3.

DISINFECTION AFTER SCARLET FEVER, DIPHTHERIA,
MEASLES, &c.

The chimney, crevices of windows and doors of the infected room should be stopped; the stuffing of the bed and mattress taken out and burnt; and the bed-tick and mattress-cover, together with bedclothes, carpets, drapery, &c., hung over lines stretched across the room, and the whole well fumigated with sulphur-fumes. At least one pound of sulphur should be burned to every thousand cubic feet of space. This is best done over night, the fumes being left in the room until morning, when it should be cautiously entered and the window opened, the mouth and nose being protected whilst in the room. The washable contents of the room should then be boiled and washed, the wall paper stripped off, and the whole of walls, floor, and ceiling be well washed with carbolic acid and water.

